

Current State Coastal Evacuation Options

***North Carolina
State Highway Patrol***



North Carolina State Highway Patrol Interstate 40 Reversal Plan



General Control Objective for the Incident

- Provide for safety of responders and public by conducting an orderly evacuation of the coast 50 miles north and 100 miles south of the City of Wilmington.

Threat Criterion

- The decision process to reverse the flow of traffic in the eastbound lanes of I-40 begins when a strong Category II hurricane (sustained winds of 103 mph or higher) is forecast to reach Category III strength, and it is forecast to make landfall within 50 miles north or within 100 miles south of Wilmington, NC.



Reversal Control Group (RCG)

- The purpose of the RCG is to evaluate the need to reverse the flow of traffic on I-40 and when reversal is necessary, to recommend approval to the Secretaries, Crime, Control, and Public Safety (CCPS) and Department of Transportation (DOT).
- *****Final approval required by the Governor of North Carolina*****

Reversal Control Group (RCG) Members

| | |
|-------------------------------------|------------------|
| Emergency Management Director | Doug Hoell |
| Highway Patrol Troop Operations | Major Mike James |
| Division of Highways Chief Engineer | Steve Varnedoe |

Reversal Control Group (RCG)

- The RCG will coordinate activities by conducting conference calls near 6:00 a.m. plus every 6 hours until the reversal is executed or the threat has passed.
- Conference calls will include RCG members, SERT members at the State EOC, NCDOT Emergency Information Center, County EM Coordinators, Control Groups in the threatened area, and local National Weather Service offices.

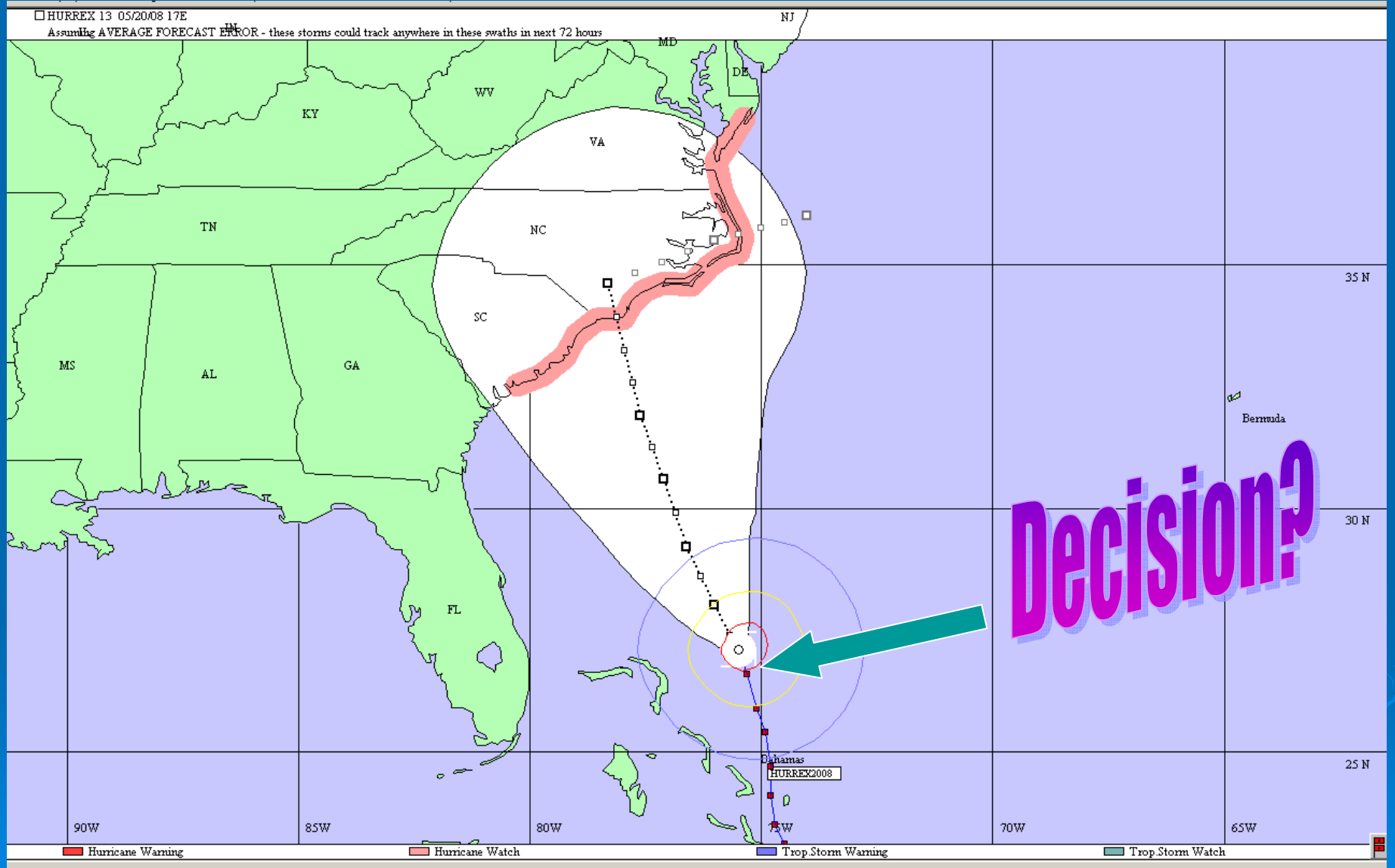
Agency Responsibilities

- The North Carolina State Highway Patrol will be responsible for manning all traffic posts from Gordon Road in Wilmington to the end of the reversal at the interchange of I-40 and I-95.
- The Wilmington Police Department will be responsible for manning any necessary traffic posts within the City of Wilmington west to the interchange of I-40 and Gordon Road.



Timeline for Activation

- If a Hurricane is predicted on a direct path to Wilmington, NC, a decision to reverse I-40 would have to be made when the storm is in vicinity of **Cuba.....**



North Carolina State Highway Patrol

- Total distance of the Reversal is 90 miles.
- Weather permitting, the North Carolina State Highway Patrol Aviation Unit will provide airborne surveillance of traffic during the Reversal.
- No large trucks, motor homes, vehicles towing large trailers or campers, or any other large commercial vehicles will be permitted to enter the lane reversal of the eastbound lanes of I-40.

North Carolina State Highway Patrol

I-40 Reversal

| | |
|-------------------------------|-----|
| Total NCSHP Personnel | 115 |
| Total Number of Interchanges | 19 |
| Total Number of Traffic Posts | 40 |

I-40 Reversal Plan

- The Command Post for the Reversal exercise will be manned by NCSHP and DOT incident command personnel and will be located at Duplin Commons on NC 11 in Kenansville about 100 yards north of the NCDOT lot.

I-40 Reversal Plan

- The order to terminate the reversal will be set at a minimum of 2 hours before sunset or the forecast landfall of tropical storm force winds in the Wilmington Area, whichever occurs earliest.
- The NCSHP may recommend early termination of reversal to the RCG if traffic levels or other circumstances warrant.



I-40 Reversal Plan Implementation

- When the decision is made that the eastbound lanes of I-40 are to be closed for the lane reversal, the Sergeants in charge of traffic posts will be notified by each respective Troop B and Troop C Lieutenant to implement the plan. They will be responsible for stopping all eastbound traffic on I-40 and clearing the roadway.



NCDOT

- **North Carolina Department of Transportation (NCDOT)-** will be responsible for providing all barricades and signs related to the reversal. This will include placing them in position prior to the beginning of the reversal and removing them at the conclusion of the reversal.

I-40 Reversal Plan Implementation

- The Sergeant will coordinate with the Department of Transportation Supervisor to ensure that all signs are beginning to be put into place. No traffic from the secondary road will be allowed to travel onto the ramp to enter the eastbound lanes of I-40 for any reason.



I-40 Reversal Plan Implementation

- The Trooper will drive eastbound to the next interchange to make sure there is no vehicular traffic between the two interchanges. This will include stranded motorists who may be anywhere between the two interchanges. All stranded motorists will have to be transported to a safe location. Their vehicles and all abandoned vehicles should be towed to designated locations by the NCDOT contract wrecker.



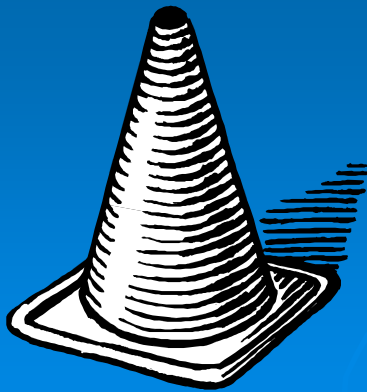
I-40 Reversal Plan Implementation

- The Trooper will advise his/her Sergeant when all motorists, stranded motorists and abandoned vehicles have been removed from the east and westbound lanes. Upon notification from the Sergeant, the Trooper will then travel back westbound in the lane reversal lanes as a secondary check for anyone who may have gotten onto the eastbound lanes. The Troopers will utilize their blue lights, flashers and other lighting equipment when making this cautionary check of the roadway.



I-40 Reversal Plan Implementation

- The Highway Patrol Sergeant will ensure there is no vehicular traffic in his area of responsibility. They will also check with the Department of Transportation Supervisor to ascertain if all signs, barricades and message boards have been deployed and are operational.



I-40 Reversal Plan Implementation

- Once this check is done, the Sergeant will contact the Troop Lieutenant in charge of the area to advise him the roadway has been checked and is clear of all traffic. The Troop Lieutenant will then contact the Highway Patrol Officer in Charge to advise him the roadway is ready for lane reversal utilization.



I-40 Reversal Plan Lane Reversal

- When the Highway Patrol Officer-In-Charge is satisfied that all traffic has been cleared from the eastbound lane of I-40, they will begin the lane reversal in Wilmington.
- The only traffic that will be allowed to enter the reversal lanes is the traffic directed into the westbound lane of I-40 at the beginning of the reversal at the intersection on NC 132 and Martin Luther King Boulevard.



I-40 Reversal Plan Lane Reversal

- Two marked North Carolina Highway Patrol “Lead Vehicles” will travel onto the eastbound lanes of I-40 and travel west in a lane reversal in front of the first lines of traffic in the lane reversal with all emergency lighting equipment activated, including blue lights, flashers and headlights not exceeding 55 MPH.
- The “Lead Vehicles” will travel the entire length of the lane reversal before exiting
- They will travel into the single lanes and onto the median crossover at the 331 MM to demonstrate the traffic flow to the motoring public. The use of the “Lead Vehicles” is necessary as a precaution in case there are vehicles that have been undetected in the eastbound lanes of travel.



I-40 Reversal Plan - Lane Reversal

- Traffic from any of the interchange areas will NOT be permitted to enter the lane reversal of I-40 and traffic shall NOT be allowed to access the I-40 reversal lanes from entrance ramps at any time.
- All traffic traveling onto I-40 from other roadways should be directed to the regularly designated westbound lanes of I-40.

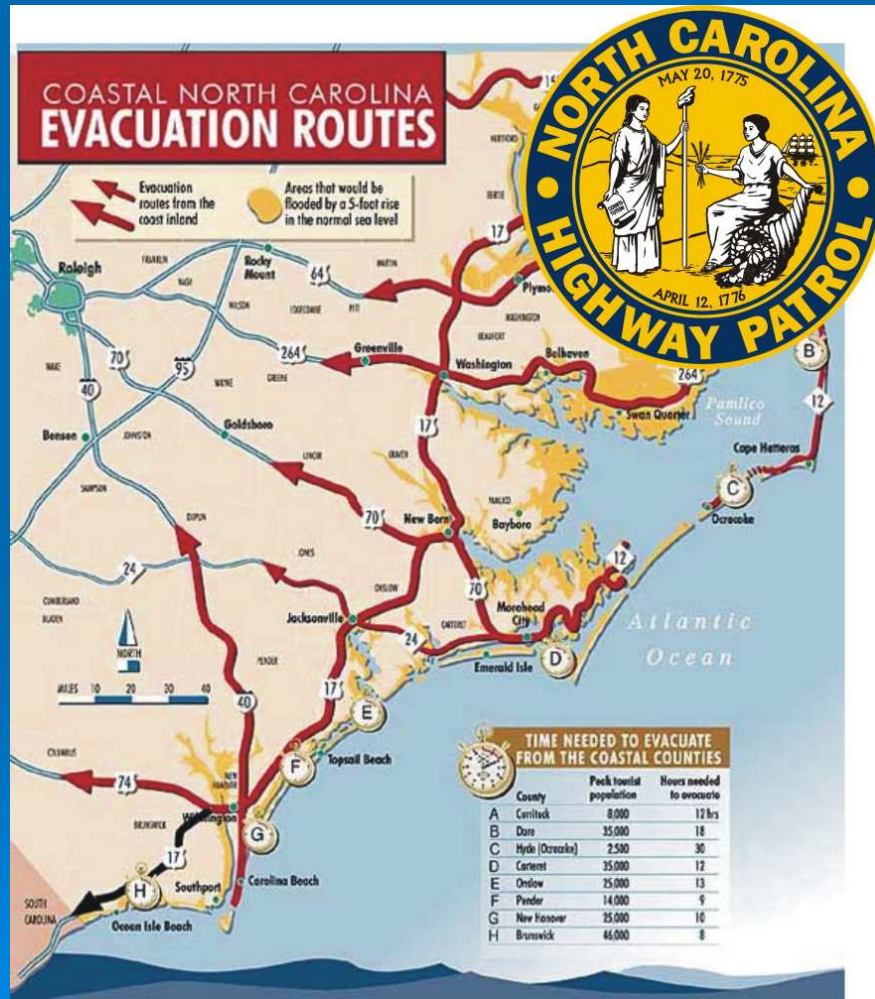
Conclusion of the Lane Reversal

- Troop Operations Major or other designated Officer in Charge decides the reversal is to be concluded, they will immediately instruct the Command Post to notify all supervisors to close ramps at all designated entrance points.
- At the lane reversal original starting point (I-40 and NC – 132 to Martin Luther King Boulevard), the Highway Patrol Sergeant in cooperation with members of the Wilmington Police Department will ensure that no other vehicles are allowed into the lane reversal.
- A designated Trooper, in a marked Highway Patrol vehicle, will then enter the lane reversal and follow the last cars that are westbound in the reversal lanes of I-40 with blue lights activated at a distance of approximately ½ mile behind to ensure no traffic to rear
- Trooper will travel the entire length of the lane reversal which concludes at (MM 331, Median Crossover).

- Trooper passes each interchange, radio assigned post supervisor (Sergeant) they are passing and that they are the last car in the reversal.
- (Sergeant) will designate a Trooper, in a marked Highway Patrol vehicle with blue lights activated at each post to travel eastbound on I-40 to ensure no traffic traveling westbound in the eastbound lanes to next post.
- (Sergeant) is satisfied that all traffic is clear, he will notify the appropriate Troop Lieutenant In Charge in this assigned area that all reversal lanes are secure.

- The appropriate Troop Lieutenant In Charge will notify the Command Post when reversal is clear for their assigned area.
- **The Troop Operations Major will make the decision to declare I-40 open for normal traffic.**
- Troop Lieutenants In Charge will order the removal of all signs and barricades.
- The Sergeants will then open all ramps and interchanges for normal traffic and will advise when same has been accomplished.

Coastal Evacuation Plan



North Carolina
State Highway Patrol

SHP Coastal Evacuation Plan Pros

- Local Troop NCSHP AND other local law enforcement personnel involved
- Most communications supported by utilizing 800MHz radios to communicate with each other, the Command Post, and local police agencies as much as possible.
- The 800MHz (VIPER) radio system is now operational in most areas of the each of the effected counties of the evacuation plan. The Patrol will utilize each county EOC as a command post with the supervisor on duty having access to an 800MHz radio.


SHP Coastal Evacuation Plan Pros

- Assigned personnel familiar with evacuation routes and traffic posts
- All Evacuation Routes used instead of just I-40
- Resource savings, NCDOT does not “truck in” signage, personnel and lighting etc. Uses local NCDOT resources. No lodging costs
- Faster set up
- Troops A and B (including all coastal counties may initiate evacuation independent of one another)
- Larger number total evacuees, no “bottleneck” on I-40, Troop B, alone over 100,000 evacuating on all evacuation routes
- Included in the State EOP as part of Coastal Regional Evacuation and Sheltering Plan (CRESP) SOG

SHP Coastal Evacuation Plan Pros

- Each county responsible for their own evacuation – Decision made locally
- SHP District First Sergeant communicates with Local EOC and NC DOT
- SHP District First Sergeant communicates with Troop Commander
- Troop Commander to State EOC and SHP Troop Operations Major

Troop A Counties

- Dare and Currituck
 - Hertford, Gates, and Bertie
 - Pasquotank, Chowan, Perquimans, and Camden
 - Beaufort, Washington, Tyrrell, and Hyde
 - Pitt and Martin
 - Craven and Pamlico
 - Lenoir and Jones
 - Carteret
- 

| | | |
|-----------------|--|-----------------------------|
| | Time Needed to Evacuate Coastal Counties in Troop A | |
| County | Peak Tourist Population | Hours Needed to Evacuate |
| Currituck | 8,000 | 12 |
| Dare | 35,000 | 18 |
| Hyde (Ocracoke) | 2,500 | 30 |
| Carteret | 35,000 | 12 |

Troop A Evacuation Roadways

- NC 12
- US 158
- US 64
- US 264
- US 70
- US 17 (Major Evacuation Route North to South)
- US 13/17

COASTAL NORTH CAROLINA EVACUATION ROUTES

- ← ROUTES INLAND
- ← ROUTES FROM DARE COUNTY
- POSSIBLE FLOODING DURING HURRICANE



Troop A Evacuation

- An estimated time of 14 to 18 hours is needed to complete evacuations from immediate coastal counties of Dare, Currituck, and Carteret as well as Ocracoke Island.
- The decision for evacuation will be the responsibility of each individual county.
- District First Sergeants will maintain constant communication with the local Emergency Management Director and participate in the decision to evacuate.
- As a general rule, with the threat of a Category III Hurricane or greater, the District First Sergeants should begin the decision process in planning for evacuation of affected counties, i.e., manpower, lodging, meals.

Troop A Personnel Needed

| “At A Glance” – Troop A Coastal Evacuation Personnel Needs | | | |
|---|------------------------|------------------------|---------------------------|
| County | Post Identified | Troopers Needed | Supervisors Needed |
| Dare | 8 | 12 | 1 |
| Currituck | 6 | 7 | 1 |
| Carteret | 9 | 18 | 2 |
| Hyde | 2 | 3 | 1 |
| Camden | 2 | 4 | 1 |
| Pasquotank | 1 | 4 | |
| Pamlico | 3 | 5 | 1 |
| Craven | 5 | 13 | 1 |
| Jones | 3 | 5 | 1 |
| Lenoir | 3 | 9 | 1 |
| Tyrrell | 1 | 3 | |

Troop A Personnel Needed

| “At A Glance” – Troop A Coastal Evacuation Personnel Needs | | | |
|---|------------------------|------------------------|---------------------------|
| County | Post Identified | Troopers Needed | Supervisors Needed |
| Washington | 2 | 3 | 1 |
| Beaufort | 0 | 9 | |
| Chowan | 0 | 3 | |
| Perquimans | 2 | 4 | |
| Martin | 2 | 6 | 1 |
| Pitt | 2 | 5 | 1 |
| Bertie | 3 | 6 | 1 |
| Gates | 4 | 8 | 1 |
| Hertford | 2 | 6 | |
| Total | 60 | 132 | 15 |

Troop B Counties

- Brunswick
- New Hanover
- Onslow
- Pender
- Duplin
- Sampson



| | Time Needed to Evacuate Coastal Counties in Troop B | |
|-------------|---|--------------------------|
| County | Peak Tourist Population | Hours Needed to Evacuate |
| Onslow | 25,000 | 13 |
| Pender | 14,000 | 9 |
| New Hanover | 25,000 | 10 |
| Brunswick | 45,000 | 8 |

Troop B (Main Evacuation Roadways)

| | | |
|------|--------|----------|
| I-40 | NC 24 | US 74 |
| I-95 | NC 50 | US 17 |
| | NC 87 | US 74/76 |
| | NC 210 | US 421 |

Troop B Evacuation

- The decision for evacuation will be the responsibility of each individual county.
- District First Sergeants will maintain constant communication with the local Emergency Management Director and participate in the decision to evacuate when requested.
- As a general rule, with the threat of a Category III Hurricane or greater, the District First Sergeants should begin the decision process in planning for evacuation of affected counties, i.e., manpower, lodging, meals.

Troop B Personnel Needed

| “At A Glance” – Troop B Coastal Evacuation Personnel Needs | | | |
|---|------------------------|------------------------|---------------------------|
| County | Post Identified | Troopers Needed | Supervisors Needed |
| Brunswick | 12 | 32 | 3 |
| New Hanover | 10 | 25 | 3 |
| Pender | 6 | 19 | 3 |
| Onslow – Carteret (Troop A) | 7 | 21 | 2 |
| Duplin | 8 | 21 | 3 |
| Sampson | 12 | 30 | 3 |
| Total | 55 | 148 | 17 |

Termination

- Traffic post will be closed to allow members to seek shelter will be ordered a minimum of 1 hour before sunset or when sustained winds reach 35 mph which ever occurs first.
- SHP will recommend termination of traffic post assignments when the traffic levels or other hazardous circumstances warrant, flooding, bridge closures etc. (At the discretion of Troop Commander with consultation with Troop Operations Major

- Questions?

- Comments?